

MATHEMATICAL SCIENCES POSTDOCTORAL RESEARCH FELLOWSHIPS

Program Solicitation

DIVISION OF MATHEMATICAL SCIENCES

DEADLINE: *October 16*



NATIONAL SCIENCE FOUNDATION

**National Science Foundation
Mathematical Sciences Postdoctoral Research Fellowships
(with Research Instructorship Option)**

As a means of contributing to the future vitality of the scientific effort of the nation, the National Science Foundation plans to announce in February the recipients of 25-30 Fellowships for Postdoctoral Research in the Mathematical Sciences, subject to the availability of funds. As researchers in the mathematical sciences expand their interactions with other disciplines, and as the interplay increases between the various areas of mathematics itself, opportunities for postdoctoral research and training become increasingly important. The fellowships are designed to permit awardees to choose research environments that will have maximal impact on their future scientific development. Awards of these fellowships will be made for appropriate research in areas of the mathematical sciences, including applications to other disciplines.

The stipend provides support for two nine-month academic years and six summer months, for a total of 24 months' support. The awardee will have two options for the academic years' stipend: full-time support for any eighteen academic-year months in a

three-year period, in intervals not shorter than three consecutive months (the Research Fellowship option), or a combination of full-time and half-time support over a period of three academic years, usually one academic year full-time and two academic years half-time (the Research Instructorship option). Not more than two summer months' support may be received in any calendar year.

Eligibility

The National Science Foundation Mathematical Sciences Postdoctoral Research Fellowships will be offered only to persons who (1) are citizens, nationals*, or lawfully admitted permanent resident aliens of the United States as of January 1, of the year of the award, (2) will have earned by the beginning of their fellowship tenure a Ph.D. in one of the mathematical sciences or have had research training and experience equivalent to that represented by such a Ph.D., and (3) **will have held the Ph.D. for no more than two years as of January 1, of the year of the award.**

*The term "nationals of the United States" designates citizens of the United States or native residents of a possession of the United States such as American Samoa. It does not refer to citizens of another country who have applied for U.S. citizenship

The National Science Foundation is committed to increasing the participation of members of under-represented groups in mathematics, science, and engineering careers. Currently, women, minorities, and persons with disabilities are underrepresented among postdoctoral researchers in the mathematical sciences. In the past, they have not applied to this program in numbers proportional to their representation in the eligible pool of candidates. For these reasons, women, under-represented minorities, and persons with disabilities are strongly encouraged to submit applications to this program.

No individual may hold both a Mathematical Sciences Postdoctoral Research Fellowship and another NSF award at the same time. In the event of multiple offers, applicants will have the opportunity to designate a preference and should contact the cognizant NSF program officers as soon as possible after their notification. Each applicant will be required to submit a research plan or proposal for study for the tenure period requested. The fellowships are not designed to support the preparation of prior research results for publication or the writing of textbooks.

Arrangements for Fellowship Institution, Senior Scientist, and Instructorship Option

The National Science Foundation Mathematical Sciences Postdoctoral Research Fellowships will be awarded for scientific research at an appropriate non-profit United States institution. These include government laboratories, national laboratories, and privately sponsored nonprofit institutes, as well as institutions of higher education. All arrangements for affiliation with the chosen fellowship institution(s) are the responsibility of the Fellow. A statement from the senior scientist with whom the Fellow plans to work, indicating both expected availability for consultation during the requested tenure period and agreement to work with the

Fellow, is required. In particular, this statement should include a discussion of the role that the senior scientist will play in the professional development of the applicant and of the opportunities for training and research at the host institution that will be of particular benefit to the applicant.

Before completion of the first year of fellowship tenure, changes in the host institution will be approved only under very unusual circumstances. Since the likely impact of both the senior scientist and the host institution on the professional development of the applicant is an important factor in the evaluation process, the selection of these, especially for the first year of fellowship tenure, will normally be viewed as a commitment on the part of the applicant to fulfill the plan for research as outlined in the application. **Securing a position at an institution other than the proposed institution is not considered a “very unusual circumstance.”**

Under certain circumstances it might be desirable for portions of the work to be done at foreign institutions. Approval to do so must be obtained in advance from both the sponsoring senior scientist and the Foundation.

If the Fellow chooses the Research Instructorship option, the institution at which the Fellow plans to hold the Instructorship must agree to provide a half-time position with a teaching load not to exceed the equivalent of three teaching hours per semester for the academic year period during which half-time NSF support is received. This agreement need not be obtained until after the awards are announced; lack of such an agreement at the time of the application will not adversely affect the evaluation.

For either the Research Fellowship or the Research Instructorship option, the host institution's faculty should have competence in the Fellow's research area, and a member of the institution's

faculty must agree to serve in the role of sponsoring senior scientist.

Tenure

The Fellow may choose to exercise the Research Instructorship option either in the original application or any time before beginning tenure; however, the choice of institution and sponsoring senior scientist must be approved in advance by the Foundation.

Each applicant must apply for a total of either two academic years' full-time support, or one academic year full-time and two academic years' half-time support. The tenure period also includes three two-month summer periods, which generally will immediately precede or immediately follow an academic year's support.

Tenure must start between June 1 and October 1 of the year of the award. Fellowships may not be renewed.

Stipends and Allowances

The stipend will be paid at the rate of \$3,250 per full-time month or \$1,625 per half-time month for a total of \$78,000 for the eighteen academic months and six summer months. No dependency allowance is available.

The National Science Foundation will provide the Fellow's host institution with an allowance of \$4,500 as partial reimbursement for expenses incurred in support of the research (such as space, supplies, equipment, secretarial assistance, etc.). If more than one institution is involved, this allowance will be prorated. NSF considers it appropriate for the institutions to make available employee health benefits, and recommends that part of its institution allowance be utilized for this purpose.

Fellows will also be provided an allowance of \$7,500 to defray costs associated with their research. This allowance is expendable

for travel, publication costs, computing equipment and other research-related items.

Evaluation and Selection of Fellows

The evaluation of applicants will be based on ability and potential as evidenced by past research and letters of recommendation; suitability and availability of the sponsoring senior scientist and other colleagues, as well as other conditions at the proposed host institution; likely impact of the scientific advisor and the host institution on the scientific development of the applicant; scientific quality of the research likely to emerge; and the potential of the applicant's contributions to the Foundation's education and human resource goals. Applications will be evaluated by a panel of mathematical scientists.

The selection of Fellows will be made by the National Science Foundation, and applicants may expect to be notified by letter on or about February 8th.

Conditions of Appointment

All awards are made subject to the general provisions in the brochure entitled *Information for Mathematical Sciences Postdoctoral Research Fellows*, which will be mailed to successful applicants. The information contained in the brochure is summarized below.

A National Science Foundation Mathematical Sciences Postdoctoral Research Fellow will be expected to devote full time (half-time during a Research Instructorship tenure) to appropriate scientific research during the tenure of the fellowship, and to pursue the program for which the fellowship was awarded. In exceptional circumstances, applications for less than full-time postdoctoral support, with reduced stipends, will be considered. Requests for such must be made in the original application, and applicants must agree to accept remuneration from no other source while on part-time tenure. Major changes in

the plan of scientific research, in tenure, or in fellowship institution require prior Foundation approval. In particular, before completion of the first year of fellowship tenure, changes in the host institution will be approved only under very unusual circumstances. **Securing a position at an institution other than the proposed institution is not considered a “very unusual circumstance.”** After an award is made, the dollar amount and length of tenure are not subject to increase except as indicated above.

If the Research Fellowship option is chosen, institutions may supplement fellowship stipends without prior permission from the Foundation provided that such is done in accordance with established institutional policies. Supplementation may be given only if there is no requirement for duties in addition to normal fellowship activities, and may involve teaching only to the extent of conducting or participating in seminars directly related to the fellowship activities and research program.

In the context of the brochure's guidelines, funds that the institution has obtained from external (including federal) sources may be considered as institutional funds. NSF awards may be used for supplementation of stipends in an amount not to exceed \$1,000 per year.

Application Procedures and Materials

To ensure full consideration, an application must be complete. Applicants are encouraged to submit applications on-line via FastLane. The deadline for receipt of applications is October 16. In order to submit applications via FastLane go the World Wide Web Page at:

www.fastlane.nsf.gov

Once there:

1) Click on **Postdoctoral Fellowships**

2) Click on **Postdoctoral Research Fellowships Application Package**

3) Click on **Prepare New Application Package**

4) Select **Mathematical Sciences Postdoctoral Research Fellowships**

5) Click on **Continue** button

Follow the directions as presented on the screen. Reference letters and the statement from the senior scientist may also be submitted by FastLane. Official transcripts and a signed copy of the Certifications statement (Appendix V) are to be sent to the address below.

Applicants who choose not to submit applications via FastLane must:

(1) Fill out the application form (Appendix I), and provide a description of the research plan and any other information (up to one page) that addresses the evaluation criteria listed above but is not contained elsewhere in the application material. The research description should be approximately 2 - 5 pages in length, should be suitable for evaluation by a specialist in the field, and yet be comprehensible to a non-specialist;

(2) Complete the “Information About Principal Investigators/Project Directors” - NSF Form 1225 (Appendix II). Note that this form requests information about the **applicant**;

(3) Have sent directly **to the address below** three or four letters of reference, normally including one from the thesis advisor. Recommendations must be prepared on the forms provided, or on photocopies thereof (Appendix III);

(4) Have sent directly **to the address below** a statement from the senior scientist at the proposed host institution commenting on the merit of the applicant's research plan or

proposal, and indicating agreement to work with the applicant if the award is made. The statement should include a discussion of the role that the senior scientist will play in the professional development of the applicant and of the opportunities for training and research at the host institution that will be of particular benefit to the applicant. Recommendations must be prepared on the form provided, or on photocopies thereof (Appendix IV);

(5) Attach an up-to-date **curriculum vitae**, which includes a complete list of the applicant's achievements and/or publications, as well as a short summary of each article contained therein;

(6) Provide complete **official** transcripts of **graduate** academic records; and

(7) Attach a signed copy of the Certifications statements (Appendix V).

The deadline for receipt of applications is October 16. Original signatures are necessary. Under unusual circumstances FAXed copies of reference letters will be accepted. However they must be followed by signed originals mailed on or before October 16. **IT IS THE APPLICANT'S RESPONSIBILITY TO ENSURE THAT ALL MATERIALS, INCLUDING THE REFERENCE LETTERS ARE RECEIVED NO LATER THAN OCTOBER 16.**

On or about November 2, each applicant will be mailed a list of all materials received, that pertain to the application. Generally an acknowledgment of the application form itself (Appendix I) will be mailed within 3 days of receipt of the application. If you do not receive an acknowledgment in a reasonable amount of time, you may inquire about the status of your application by e-mail: nsfpostdocs@ams.org or by phone: (401) 455-4105.

Send completed application and supporting materials to:

**NSF Mathematical Sciences
Postdoctoral Research Fellowships
c/o American Mathematical Society
P. O. Box 6248
Providence, Rhode Island 02940**

**Street Address :
201 Charles Street
Providence, Rhode Island 02904**

**Telephone: (401) 455-4105
FAX: (401) 455-4004
E-mail: nsfpostdocs@ams.org**

E-mail may be used for inquiries only:

NOTE: Only applications and supporting materials are to be sent to Providence, Rhode Island. Inquiries regarding other matters should be addressed to:

**Infrastructure Program
Division of Mathematical Sciences
NSF 98-135
National Science Foundation
4201 Wilson Blvd.
Arlington VA 22230**

**E-mail: msprf@nsf.gov
Telephone: (703) 306-1870
FAX: (703) 306-0555**

Other Related Programs

Information about related programs as well as additional information about the programs listed below may be found in the NSF brochure entitled Guide to Programs (NSF 98-2 or latest version).

NSF-NATO Postdoctoral Fellowships in Science and Engineering

In order to promote the progress of science and closer collaboration among the scientists of various nations, the North Atlantic Treaty Organization offers the NSF-NATO

Postdoctoral Fellowships Program. NSF administers the program at the request of the U.S. Department of State. Awards are offered for further research and/or study in the sciences or engineering at institutions located in NATO countries other than the United States.

For further details contact:

NSF-NATO POSTDOCTORAL
FELLOWSHIPS IN SCIENCE AND
ENGINEERING
Division of Graduate Education and
Research Development
Room 907
National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22203

Telephone: (703) 306-1696

Postdoctoral Research Associateships in Computational Science and Engineering (CS&E)

The New Technologies Program in the Division of Advanced Computational Infrastructure and Research will provide support for Postdoctoral Research Associateships in Computational Science and Engineering. The objective of the Associateship awards is to provide opportunities for young scientists to broaden their knowledge and experience and to prepare them for significant research careers on the frontiers of contemporary computational science and engineering.

For further details contact:

NEW TECHNOLOGIES RESEARCH
ASSOCIATESHIPS
Division of Advanced Computational
Infrastructure and Research
Room 1122
National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

Telephone: (703) 306-1962

U.S. - Japan Programs

In 1988 the National Science Foundation began a "Japan Initiative" to increase opportunities for U.S. scientists and engineers to conduct research at Japanese institutions. Applicants for the Mathematical Sciences Postdoctoral Research Fellowships are hereby advised of supplemental support which that Initiative will provide to those who spend six months or more at an appropriate Japanese research institution.

1. In addition to the regular Fellowship stipend, Fellows will receive round-trip travel expenses and, while in Japan, allowances for housing, professional travel within Japan, Japanese language study, and dependents' travel, housing and education. Each award will take into account actual housing needs, locale, and other factors affecting the cost of living during one's Fellowship period.

2. Fellows are also eligible to receive support for one to two years of Japanese language study before they go to Japan. Ask for brochure NSF 90-144 or latest version.

All arrangements for affiliation with a Japanese host scientist and institution are the responsibility of the applicant. A statement is required from the host scientist with whom the applicant plans to work, indicating a commitment for facilities and consultation during the requested period of tenure. A Fellow, prior to beginning tenure, must submit evidence of acceptance by the proposed host institution.

For further details contact:

JAPAN PROGRAM
Division of International Programs
Room 935
National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

Telephone: (703) 306-1701
Electronic mail: NSFJinfo@nsf.gov

**Opportunities in the Division of
Mathematical Sciences**

The Infrastructure Program of the Division of Mathematical Sciences supports a number of other postdoctoral opportunities through a variety of mechanisms. For example: the University-Industry Cooperative Research Programs in the Mathematical Sciences

(brochure NSF 94-100) includes research opportunities with faculty mentors and industrial sponsors, for postdoctoral fellows. For more information about these opportunities contact:

Infrastructure Program
Division of Mathematical Sciences
Room 1025
National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230
Telephone: (703) 306-1870

APPENDIX I

NATIONAL SCIENCE FOUNDATION MATHEMATICAL SCIENCES POSTDOCTORAL RESEARCH FELLOWSHIP APPLICATION

The deadline for submission to the NSF Research Fellowships Office is October 16. For more details, see page 3.

Information on All Application Materials Must be Typed or Printed.

NAME

Last First MI Other Names Used

SOCIAL SECURITY NO. _____

MAILING ADDRESS for correspondence. It is imperative that you keep NSF informed of a current mailing address.

CURRENT ACADEMIC ADDRESS

CURRENT E-MAIL ADDRESS: _____

TELEPHONE NUMBERS:

At home: _____

At your institution: _____

FAX number: _____

CURRENT POSITION

Department _____

Institution _____

Type of Institution _____

Title of Position _____

Date this position started _____

Source of support _____

CITIZENSHIP (check one)

☐ US Citizen or National ☐ Permanent Resident ☐ Foreign National (give country: _____)

If you are a Permanent Resident you must provide your Permanent Resident Registration Number: _____

HIGHEST DEGREE EARNED: _____ YEAR CONFERRED: _____

DOCTORAL DEGREE

Department and Institution _____
Date awarded or anticipated date of receipt _____

PROPOSED FELLOWSHIP INSTITUTION including department and address

PROPOSED SPONSORING SCIENTIFIC ADVISOR OR MENTOR including title, e-mail address, telephone and FAX numbers:

(Telephone) _____ (FAX) _____

REFERENCES (do not use your mentor)

	Name	Department	Institution	Phone
Ph.D Advisor	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

EXPECTED STARTING DATE OF FELLOWSHIP: _____
Month, year

DURATION OF TENURE: _____
of months

OTHER SUPPORT

Have you ever applied for any other fellowships or similar appointments for all or part of the tenure herein requested? _____

If so, name of agency and program _____

Have you ever received any NSF postdoctoral fellowship? _____

If yes, when and from what program? _____

BRIEF TITLE of your proposed research or field of study:

1. Provide two-digit classification of your proposed research according to the classification system on page 7:

Primary code _____ Secondary areas _____

2. It is normally desirable to select an institution different from where you received your doctoral degree or where you are currently employed; please provide justification (on separate sheet) if your proposed fellowship institution is the same as either of the above. It is not necessary to provide justification if you have been currently employed at your proposed fellowship institution for less than one year and it is not where you received your doctoral degree; if that is the case, please check here: _____

3. Do you plan to use the Fellowship for 18 academic months full-time? ____

or the Instructorship for 9 months full-time and 18 months half-time? ____

If half-time, have you secured a suitable commitment for a teaching position at your host institution? ____ Yes ____ No

4. Specify the area of mathematical science (pure mathematics, applied mathematics, statistics):

I have read the program announcement in detail and have noted its conditions.

Signature of applicant _____

Date _____

THIS APPLICATION IS NOT COMPLETE WITHOUT THE ABOVE SIGNATURE.

RETURN TO:

**NSF MATHEMATICAL SCIENCES POSTDOCTORAL RESEARCH FELLOWSHIPS
C/O AMERICAN MATHEMATICAL SOCIETY
P. O. BOX 6248, PROVIDENCE, RHODE ISLAND 02940
STREET ADDRESS: 201 Charles Street, Providence, RI 02904**

00 General
01 History and biography
03 Logic and foundations
04 Set theory
05 Combinatorics
06 Order, lattices, ordered algebraic
structures
08 General mathematical systems
11 Number theory
12 Field theory and polynomials
13 Commutative rings and algebras
14 Algebraic geometry
15 Linear and multilinear algebra, matrix
theory

16 Associative rings and algebras
17 Nonassociative rings and algebras
18 Category theory, homological algebra
19 K-theory
20 Group theory and generalizations
22 Topological groups, Lie groups
26 Real functions
28 Measure and integration
30 Functions of a complex variable
31 Potential theory
32 Several complex variables and analytic
spaces
33 Special functions
34 Ordinary differential equations

35	Partial differential equations	62	Statistics
39	Finite differences and functional equations	65	Numerical analysis
40	Sequences, series, summability	68	Computer science
41	Approximations and expansions	70	Mechanics of particles and systems
42	Fourier analysis	73	Mechanics of solids
43	Abstract harmonic analysis	76	Fluid mechanics
44	Integral transforms, operational calculus	78	Optics, electromagnetic theory
45	Integral equations	80	Classical thermodynamics, heat transfer
46	Functional analysis	81	Quantum theory
47	Operator theory	82	Statistical mechanics, structure of matter
49	Calculus of variations, optimal control	83	Relativity and gravitational theory
51	Geometry	85	Astronomy and astrophysics
52	Convex and discrete geometry	86	Geophysics
53	Differential geometry	90	Economics, operations research, programming, games
54	General topology	92	Biology and other natural sciences, behavioral sciences
55	Algebraic topology	93	Systems theory, control
57	Manifolds and cell complexes	94	Information and communication, circuits
58	Global analysis, analysis on manifolds		
60	Probability theory and stochastic processes		

Submission of SSN and other personal data is voluntary and will not affect the individual's eligibility for an award. However, they are an integral part of the NSF information system and assist in processing proposals. SSN solicited under NSF Act of 1950, as amended.

Classifications are requested mainly for the purpose of matching your application to review panel members who can best evaluate your proposed research. Therefore, it is important that you supply a primary and at least one secondary classification. If no classification exactly matches your research field, please provide the ones that are best for the above purpose.

NOTE: It is the applicant's responsibility to ensure that the reference letters requested (see page X) are received no later than October 16th.

APPENDIX II--NSF Form 1225
(Please refer to Grant Proposal Guide--NSF 98-2)

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APPENDIX III

NATIONAL SCIENCE FOUNDATION Recommendation for Postdoctoral Fellowship

_____ has applied for a Mathematical Sciences Postdoctoral Research Fellowship, and has given your name as a reference. Along with this form, the applicant will have provided you with a statement of his or her proposed research. Please give your evaluation of the applicant, with reference to the following aspects of his or her development: (a) the significance of the applicant's research to date; (b) evidence of originality or imagination in the applicant's work to date; (c) the significance of the proposed research; and, (d) where applicable, the potential of the applicant's contributions to the Foundation's education and human resource goals. Attach continuation sheets as necessary. **You should be aware that standard letters composed specifically for teaching positions may not be appropriate for this Fellowship application.**

Previous panels have suggested that it would be useful to have comparisons of applicants with other individuals at the early stages of their careers.

It is necessary that one of the two alternatives below be checked.

A ☐ My identity and this report must be held in confidence.

B ☐ This report may be released on request.

If statement A is checked, the Foundation will honor this request to the extent permitted by law.

PLEASE PRINT

Title, Department and Institutional Affiliation

Last Name, First

Signature

Receipt no later than October 16th

NSF Mathematical Sciences Postdoctoral Research Fellowships
c/o American Mathematical Society
P. O. Box 6248
Providence, RI 02940
Street Address: 201 Charles Street, Providence, RI 02904

If circumstances require FAXing this recommendation for the application package to be complete in the AMS offices by October 16, FAX to: (401) 455-4004.

APPENDIX IV

NATIONAL SCIENCE FOUNDATION

Recommendation by Host Scientist for Postdoctoral Fellowship

_____ has applied for a Mathematical Sciences Postdoctoral Research Fellowship, and has stated that you have agreed to be the senior scientist with whom the applicant plans to work. Along with this form, the applicant will have provided you with a statement of his or her proposed research. Please give your evaluation of the applicant with reference to the following aspects of his or her development: (a) the significance of the applicant's research to date; (b) evidence of originality or imagination in the applicant's work to date; (c) the significance of the proposed research; and (d) where applicable, the potential of the applicant's contributions to the Foundation's education and human resource goals. Please also indicate your agreement to work with the applicant if the award is made, describe what role you will play in the professional development of the applicant, and comment on the opportunities for training and research at your institution that will be of particular benefit to the applicant. Attach continuation sheets as necessary. **You should be aware that standard letters composed specifically for teaching positions may not be appropriate for this Fellowship application.**

Previous panels have suggested that it would be useful to have comparisons of applications with other individuals at the early stages of their careers.

It is necessary that one of the two alternatives below be checked.

A ☐ My identity and this report must be held in confidence.

B ☐ This report may be released on request.

If statement A is checked, the Foundation will honor this request to the extent permitted by law.

PLEASE PRINT

Title, Department, and Institutional Affiliation

Last Name, First

Signature

Receipt no later than October 16th.

NSF Mathematical Sciences Postdoctoral Research Fellowships
c/o American Mathematical Society
P. O. Box 6248
Providence, RI 02940
Street Address: 201 Charles Street, Providence, RI 02904

If circumstances require FAXing this recommendation for the application package to be complete in the AMS offices by October 16, FAX to: (401) 455-4004.

APPENDIX V

NATIONAL SCIENCE FOUNDATION

There are three certifications which, by law, must be made before the National Science Foundation can authorize funds for a fellowship award. These concern (1) controlled substances; (2) delinquency on Federal debt; and (3) debarment and suspension.

CERTIFICATIONS

I certify that:

1. I will not engage in unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in the conduct of any activity with this fellowship award;
2. I am not delinquent on repayment of any Federal debt; and
3. To the best of my knowledge and belief:
 - (a) I am not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) I have not within a three-year period preceding my application been convicted of or had a civil judgment rendered against me for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) I am not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (3)(b) of this certification; and
 - (d) I have not within a three-year period preceding this application had one or more public transactions (Federal, State or local) terminated for cause or default

Signature

Date

The Foundation provides awards for research and education in the sciences and engineering. The awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for the research findings or their interpretation.

The Foundation welcomes proposals from all qualified scientists and engineers and strongly encourages women, minorities, and persons with disabilities to compete fully in any of the research and education related programs described here. In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from the National Science Foundation.

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF projects. See the program announcement or contact the program coordinator at (703) 306-1636.

The National Science Foundation has TDD (Telephonic Device for the Deaf) capability, which enables individuals with hearing impairment to communicate with the Foundation about NSF programs, employment, or general information. To access NSF TDD dial (703) 306-0090; for FIRS, 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on the application materials is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified applicants and may be disclosed to qualified reviewers and staff assistants as part of the review process; to the institution the nominee, applicant or fellow is attending or is planning to attend or is employed by for the purpose of facilitating review or award decisions, or administering fellowships or awards; to government contractors, experts, volunteers and researchers as necessary to complete assigned work; to other government agencies needing data regarding applicants or nominees as part of the application review process, or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information from this system may be merged with other computer files to carry out statistical studies the results of which do not identify individuals. Notice of the agency's decision may be given to nominators, and disclosure may be made of awardees' names, home institutions, and fields of study for public information purposes. For fellows or awardees receiving stipends directly from the government, information is transmitted to the Department of the Treasury to make payments. See System of Records, NSF-12, "Fellowships and Other Awards," 63 Federal Register 265 (January 5, 1998). Submission of the information is voluntary; however, failure to provide full and complete information may reduce the possibility of your receiving an award.

The public reporting burden for this collection of information is estimated to average 12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other

aspect of this collection of information, including suggestions for reducing this burden to: Reports Clearance Officer; Information Dissemination Branch, DAS; National Science Foundation; Arlington, VA 22230.

The National Science Foundation has TDD (Telephonic Device for the Deaf) capability, which enables individuals with hearing impairment to communicate with the Foundation about NSF programs, employment, or general information. To access NSF TDD dial (703) 306-0090; for FIRS, 1-800-877-8339.

Privacy Act. The information requested on the application materials is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified applicants and may be disclosed to qualified reviewers and staff assistants as part of the review process; to the institution, the nominee, applicant or fellow is attending or is planning to attend or is employed by for the purpose of facilitating review or award decisions, or administering fellowships or awards; to government contractors, experts, volunteers, and researchers as necessary to complete assigned work; and to other government agencies in order to coordinate programs. Information from this system may be merged with other computer files to carry out statistical studies, the results of which do not identify individuals. Disclosure may be made of awardees' names, home institutions, and fields of study for public information purposes. For fellows or awardees receiving stipends directly from the government, information is transmitted to the Department of the Treasury to make payments. See Systems of Records, NSF-12, "Fellowships and Other Awards," 60 Federal Register 4449 (January 23, 1995).

Ordering by Electronic Mail or by FAX

If you are a user of electronic mail and have access to Internet, you may order publications electronically. Send requests to pubs@nsf.gov. In your request, include the NSF publication number and title, number of copies, your name, and a complete mailing address. Printed publications may be ordered by FAX (703/644-4278). Publications should be received within 3 weeks after receipt of request.

This program is described in the Catalog of Federal Domestic Assistance Category 47.049 (Mathematical and Physical Sciences).

OMB 3145-0023

PT 22

KW 1010000

NSF 98-135

(replaces NSF 97-130)